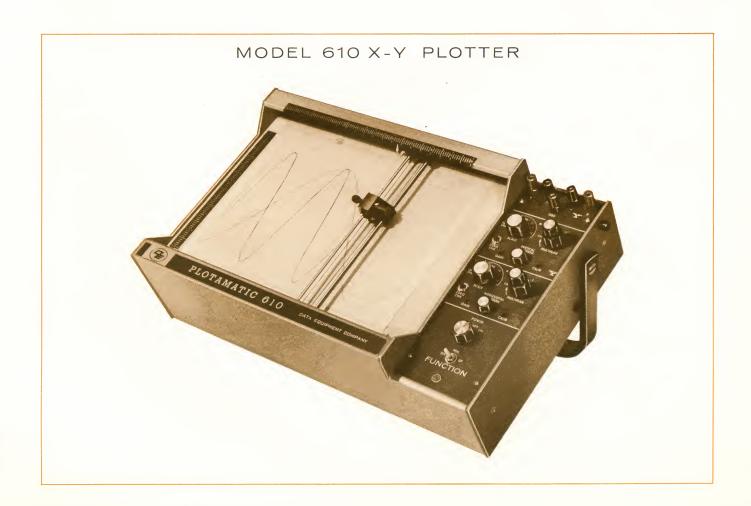
The PLOTAMATIC 600 SERIES of instruments comprises the Model 600, 610 and a computer Model 620. This family of low-cost 8½ by 11 inch, completely transistorized, analog x - y plotters is designed to produce graphic plots of one d-c voltage either as a function of a second d-c voltage or as a function of time. Voltage inputs may be accepted from a variety of sensors: temperature, pressure, position, velocity, displacement, acceleration, stress, strain, flow, etc. The SERIES 600 plotters have been human engineered for quiet operation and complete front panel control. New servo-amplifier design ensures superior reliability and greater frequency response. The time sweep, available only in the Model 600, is continuously variable between fixed ranges and is extended to 1000 seconds; automatic reset also is provided. Standard features include temperature compensated reference voltage (Models 600 and 610) for greater stability, sealed follow-up potentiometers, replaceable ink cartridge, and non-clog vacuum paper hold down system. Special versions of the PLOTAMATIC 600 SERIES may be ordered to meet requirements of particular systems.



■ GREATER FREQUENCY RESPONSE

■ PUSH-BUTTON ZERO CHECK SWITCH-EACH AXIS

**QUIET OPERATION** 

■ ULTRASTABLE ZENER BRIDGE CIRCUIT REFERENCE VOLTAGE

FRONT PANEL SELECTION OF

■ FULL SCALE ZERO ADJUSTMENT PLUS 100% OFFSET

POTENTIOMETRIC MODE

■ METRIC CALIBRATION AND REMOTE PEN LIFT-OPTIONAL

■ MAINTENANCE FREE, SEALED, FOLLOW-UP POTENTIOMETERS

## PLOTAMATIC\* MODEL 610 SPECIFICATIONS

0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500 MV/INCH AND 1, 2, 5, 10, 20, 50, VOLTS/INCH CONTINUOUS VERNIER ON ALL RANGES
FLOATING, BOTH AXES ISOLATED
0.5, 1, 2, 5 MV/INCH CONTINUOUS VERNIER ON ALL RANGES
ONE MEGOHM CONSTANT ALL RANGES: POTENTIOMETRIC MODE ESSENTIALLY INFINITE
0.2% FULL SCALE, BOTH AXES
.1%
FULL SCALE PLUS 100% OFFSET
20 INCHES/SEC, BOTH AXES
INDEPENDENT SERVO DRIVES X AND Y AXES
TEMPERATURE COMPENSATED ZENER BRIDGE CIRCUIT
TEMPERATURE 0°-50°C
8½" x 11" STANDARD GRAPH PAPER
115V/230V 50/60 C.P.S.
TABLE TOP 17 INCHES WIDE, 10½ INCHES DEEP, 4½ INCHES HIGH RACK MOUNTING: MOUNTS IN 19-INCH RACK.
18 POUNDS

### PURCHASING DATA

All prices are F.O.B. Santa Ana, California 92705.

For rack mounting add an "R" to model number.

Where F.O.B. destination is required, transportation cost will be quoted as a separate item at existing rates.

Payment terms, Net 30 days.

Purchase orders should be made out to Data Equipment Company through the local representative, or directly to Data Equipment Company.

Modifications (special paint, rear mounted connectors, etc.) will be quoted at existing rates.

Price: Model 610 or 610R - \$1,495.00

Prices and Specifications subject to change without notice.

REPRESENTED BY:

CUSTOM DESIGNED PLOTTERS QUOTED ON REQUEST

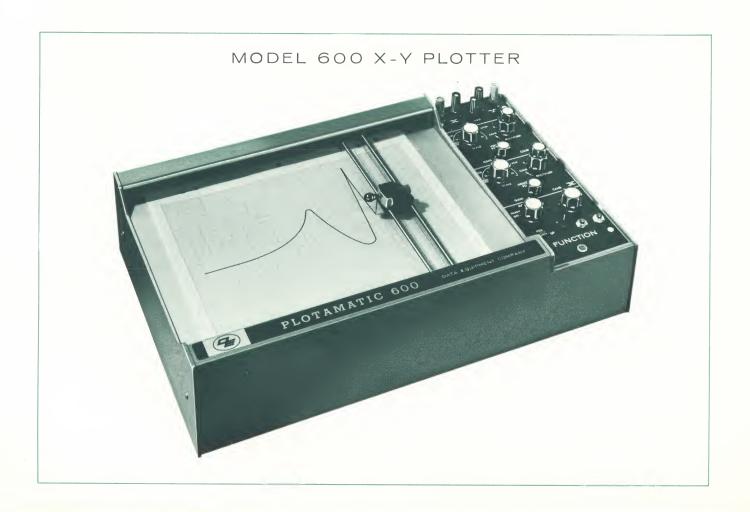


## DATA EQUIPMENT COMPANY

DIVISION BBN CORPORATION (DELAWARE) 2126 S. Lyon Street ■ Santa Ana, California 92705 Telephone: (714) 546-5300 TWX: 714 546-0437



The PLOTOMATIC 600 SERIES of instruments comprises the Model 600, 610 and a computer Model 620. This family of low-cost 8½ by 11 inch, completely transistorized, analog x - y plotters is designed to produce graphic plots of one d-c voltage either as a function of a second d-c voltage or as a function of time. Voltage inputs may be accepted from a variety of sensors: temperature, pressure, position, velocity, displacement, acceleration, stress, strain, flow, etc. The SERIES 600 plotters have been human engineered for quiet operation and complete front panel control. New servo-amplifier design ensures superior reliability and greater frequency response. The time sweep, available only in the Model 600, is continuously variable between fixed ranges and is extended to 1000 seconds; automatic reset also is provided. Standard features include temperature compensated reference voltage (Models 600 and 610) for greater stability, sealed follow-up potentiometers, replaceable ink cartridge, and non-clog vacuum paper hold down system. Special versions of the PLOTAMATIC 600 SERIES may be ordered to meet requirements of particular systems.



- GREATER FREQUENCY RESPONSE
- 1000 SECOND TIME BASE VERNIER ON ALL RANGES
- **QUIET OPERATION**
- AUTOMATIC TIME-BASE RESET
- # FRONT PANEL SELECTION OF POTENTIOMETRIC MODE
- PUSH-BUTTON ZERO CHECK SWITCH-EACH AXIS
- ULTRASTABLE ZENER BRIDGE CIRCUIT REFERENCE VOLTAGE
- FULL SCALE ZERO ADJUSTMENT PLUS 100% OFFSET
- METRIC CALIBRATION AND REMOTE PEN LIFT-OPTIONAL
- MAINTENANCE FREE, SEALED, FOLLOW-UP POTENTIOMETERS

## PLOTAMATIC MODEL 600 SPECIFICATIONS

D.C. VOLTAGE RANGES	0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500 MV/INCH AND 1, 2, 5, 10, 20, 50, VOLTS/INCH CONTINUOUS VERNIER ON ALL RANGES
INPUTS	FLOATING, BOTH AXES ISOLATED
POTENTIOMETRIC MODE	0.5, 1, 2, 5 MV/INCH CONTINUOUS VERNIER ON ALL RANGES
INPUT IMPEDANCE	ONE MEGOHM CONSTANT ALL RANGES: POTENTIOMETRIC MODE ESSENTIALLY INFINITE
ACCURACY	0.2% FULL SCALE, BOTH AXES
REPEATABILITY	.1%
ZERO ADJUSTMENT	FULL SCALE PLUS 100% OFFSET
CARRIAGE SWEEP RANGE	.01, .02, .05, 0.1, 0.2, 0.5, 1.0 INCHES/SEC 10 INCHES TOTAL SWEEP
SWEEP ACCURACY	WITHIN 5%, 0.01, 0.02 INCHES/SEC; 2% ALL OTHER SETTINGS
SLEWING SPEED	20 INCHES/SEC, BOTH AXES
MECHANISM	INDEPENDENT SERVO DRIVES X AND Y AXES
REFERENCE VOLTAGE	TEMPERATURE COMPENSATED ZENER BRIDGE CIRCUIT
OPERATING ENVIRONMENT	TEMPERATURE 0°-50°C
PAPER SIZE	8½" x 11" STANDARD GRAPH PAPER
POWER REQUIREMENTS	115V/230V 50/60 C.P.S.
DIMENSIONS	TABLE TOP 17 INCHES WIDE, 10½ INCHES DEEP, 4½ INCHES HIGH RACK MOUNTING: MOUNTS IN 19-INCH RACK.
WEIGHT	18 POUNDS

### PURCHASING DATA

All prices are F.O.B. Santa Ana, California 92705.

For rack mounting add an "R" to model number.

Where F.O.B. destination is required, transportation cost will be quoted as a separate item at existing rates.

Payment terms, Net 30 days.

Purchase orders should be made out to Data Equipment Company through the local representative, or directly to Data Equipment Company.

Modifications (special paint, rear mounted connectors, etc.) will be quoted at existing rates.

Price: Model 600 or 600R - \$1,575.00

Prices and Specifications subject to change without notice.

REPRESENTED BY:

CUSTOM DESIGNED PLOTTERS QUOTED ON REQUEST



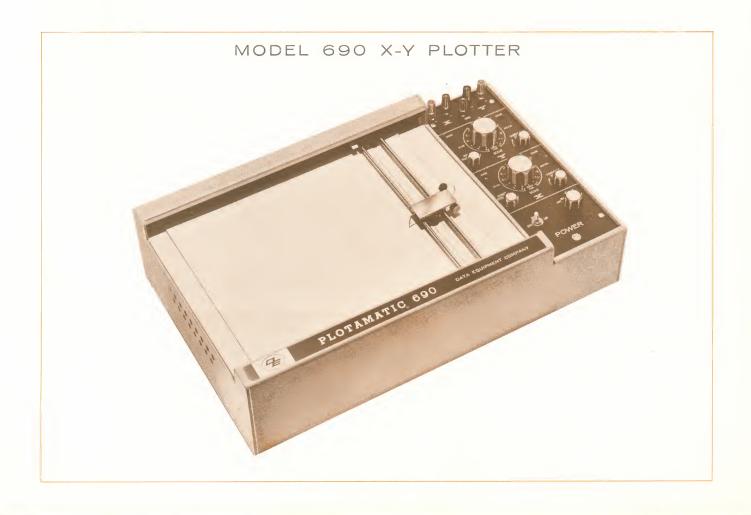
## DATA EQUIPMENT COMPANY

DIVISION BBN CORPORATION (DELAWARE) 2126 S. Lyon Street ■ Santa Ana, California 92705 Telephone: (714) 546-5300 TWX: 714 546-0437



The PLOTAMATIC\* MODEL 690 PLOTTER is a low-cost 8½ by 11 inch, completely transistorized, analog x-y plotter, designed to produce graphic plots of one d-c voltage either as a function of a second d-c voltage or as a function of time. Voltage inputs may be accepted from a variety of sensors: temperature, pressure, position, velocity, displacement, acceleration, stress, strain, flow, etc. The MODEL 690 plotter has been human engineered for quiet operation and complete front panel control.

New servo-amplifier design ensures superior reliability and greater frequency response. Standard features include long-life mercury battery reference, sealed follow-up potentiometers, replaceable ink cartridge, and non-clog vacuum paper hold down system. Special versions of the PLOTAMATIC MODEL 690 may be ordered to meet requirements of particular systems.



### STANDARD:

- **GREATER FREQUENCY RESPONSE**
- FULL SCALE ZERO ADJUSTMENT PLUS 100% OFFSET
- QUIET OPERATION
- MAINTENANCE-FREE, SEALED, FOLLOW-UP POTENTIOMETERS
- **VACUUM PAPER HOLD-DOWN**
- **ELECTRIC PEN LIFT**

- **REAR INPUT CONNECTIONS**
- **INDICATOR SCALES**
- REMOTE PEN LIFT
- **\*\* RETRANSMITTING POTENTIOMETERS**
- **METRIC CALIBRATION**

### PLOTAMATIC MODEL 690 SPECIFICATIONS

D.C. VOLTAGE RANGES	0.5, 1, 2, 5, 10, 20, 50 MV/INCH AND 0.1, 0.2, 0.5, 1, 2, 5, VOLTS/INCH. CONTINUOUS VERNIER ON ALL RANGES.
INPUTS	FLOATING, SINGLE ENDED BOTH AXES.
INPUT IMPEDANCE	ONE MEGOHM CONSTANT ALL RANGES.
ACCURACY	±0.5% FULL SCALE; ANY ONE RANGE MAY BE CALIBRATED TO 0.1%.
ZERO ADJUSTMENT	FULL SCALE PLUS 100% OFFSET.
SLEWING SPEED	20 INCHES/SEC. BOTH AXES.
MECHANISM	INDEPENDENT SERVO DRIVES, X AND Y AXES.
REFERENCE VOLTAGE	LONG LIFE MERCURY BATTERIES.
OPERATING ENVIRONMENT	TEMPERATURE 0° – 50° C.
PAPER SIZE	8½" x 11" STANDARD GRAPH PAPER.
POWER REQUIREMENTS	115V/23OV, 50/60 CPS, 100 WATTS.
DIMENSIONS	TABLE TOP: 17 INCHES WIDE; 10½ INCHES DEEP, 4½ INCHES HIGH. RACK MOUNTING: MOUNTS IN 19-INCH RACK.
WEIGHT	20 POUNDS.

### PURCHASING DATA

All prices are F.O.B. Santa Ana, California 92705.

For rack mounting add an "R" to model number. Where F.O.B. destination is required, transportation cost will be quoted as a separate item at existing rates.

Payment terms, Net 30 days.

Purchase orders should be made out to Data Equipment Company through the local representative, or directly to Data Equipment Company.

Prices and Specification subject to change without notice.

Model 690-\$1,200.00 Model 690R-\$1,215.00

OPTIONS:

Remote pen lift - \$25.00 Rear input connectors - \$15.00

Carrying handle - \$15.00 Indicator scales - \$5.00

Metric Calibration - \$15.00

Retransmitting potentiometers – \$50.00 (each axis)

Special paint - \$50.00 (per order)

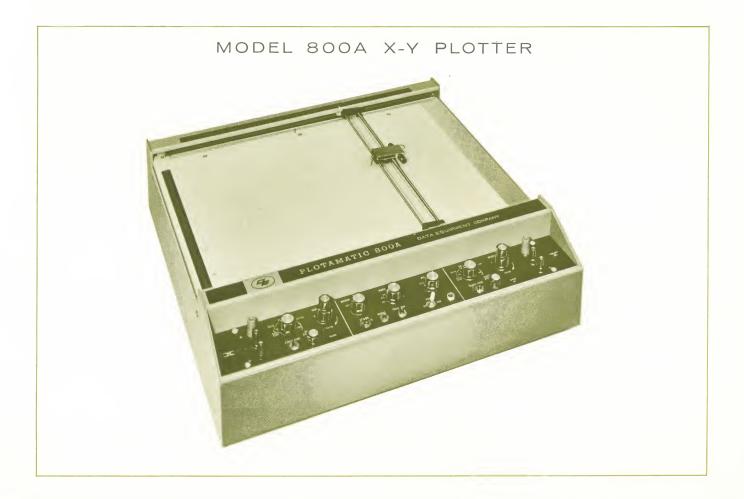
REPRESENTED BY:

CUSTOM DESIGNED PLOTTERS QUOTED ON REQUEST





The PLOTAMATIC 800A SERIES of instruments comprises the Model 800A, 810A and a computer Model 820A. This family of precision 11 by 17 inch, all silicon transistor circuitry, analog x - y plotters is designed to produce graphic plots of one d - c voltage either as a function of a second d - c voltage or as a function of time. Voltage inputs may be accepted from a variety of sensors: temperature, pressure, position, velocity, displacement, acceleration, stress, strain, flow, etc. The SERIES 800A plotters have been human engineered for quiet operation and complete front panel control. New servo-amplifier design ensures superior reliability and greater frequency response. The time sweep, available only in the Model 800A, is continuously variable between fixed ranges and is extended to 1500 seconds; automatic reset also is provided. Standard features include temperature compensated zener reference source (Models 800A and 810A) for greater stability, sealed follow-up potentiometers, replaceable ink cartridge, and non-clog vacuum paper hold down system. Special versions of the PLOTAMATIC 800A SERIES may be ordered to meet requirements of particular systems.



■ GREATER FREQUENCY RESPONSE

■ TIME BASE PUSH-BUTTON START-RESET

# 1500 SECOND TIME BASE VERNIER

■ FRONT PANEL SELECTION OF POTENTIOMETRIC MODE

ON ALL RANGES

**QUIET OPERATION** 

■ PUSH-BUTTON ZERO CHECK SWITCH-EACH AXIS
■ ULTRASTABLE ZENER BRIDGE CIRCUIT REFERENCE VOLTAGE

AUTOMATIC TIME-BASE RESET

■ FULL SCALE ZERO ADJUSTMENT PLUS 100% OFFSET

REMOTE OR LOCAL OPERATION

■ METRIC CALIBRATION-OPTIONAL

MAINTENANCE FREE, SEALED, FOLLOW-UP POTENTIOMETERS

## PLOTAMATIC\* MODEL 800A SPECIFICATIONS

D.C. VOLTAGE DANIES	
D.C. VOLTAGE RANGES  CALIBRATED STEPS OF 0.5, 1, 2, 5, 10, 20, 50, 100, 200, MV/INCH AND 1, 2, 5, 10, 20, 50 VOLTS/INCH CONTINUOUS VERNIER ON ALL RANGES	500
INPUTS FLOATING, BOTH AXES ISOLATED	
POTENTIOMETRIC MODE  0.5, 1, 2, 5 MV/INCH  CONTINUOUS VERNIER ON ALL RANGES	
INPUT IMPEDANCE  ONE MEGOHM CONSTANT ALL RANGES: POTENTIOMETRIC MODE ESSENTIALLY INFINITE	
ACCURACY 0.15% FULL SCALE, BOTH AXES	
REPEATABILITY .1%	
ZERO ADJUSTMENT FULL SCALE PLUS 100% OFFSET	Y.
CARRIAGE SWEEP RANGE .01, .02, .05, 0.1, 0.2, 0.5, 1.0, 2.0 INCHES/SEC 15 INCHES TOTAL SWEEP	
SWEEP ACCURACY 2%	
SLEWING SPEED 20 INCHES/SEC, BOTH AXES	
MECHANISM INDEPENDENT SERVO DRIVES X AND Y AXES	
REFERENCE VOLTAGE TEMPERATURE COMPENSATED ZENER BRIDGE CIRCUIT	т
OPERATING ENVIRONMENT TEMPERATURE 0°-50°C	
PAPER SIZE 11" x 17" STANDARD GRAPH PAPER	
POWER REQUIREMENTS 115V/230V 50/60 C.P.S.	
DIMENSIONS  TABLE TOP 17 INCHES WIDE, 17½ INCHES DEEP, 4 - 29/32 INCHES HIGH RACK MOUNTING: MOUNTS IN 19-INCH RACK.	
WEIGHT 25 POUNDS	

### PURCHASING DATA

All prices are F.O.B. Santa Ana, California 92705.
For rack mounting add an "R" to model number. For metric calibration add an "M" to model number.
Where F.O.B. destination is required, transportation cost will be quoted as a separate item at existing rates.
Payment terms, Net 30 days.
Purchase orders should be made out to Data Equipment Company through the local representative, or directly to Data Equipment Company.
Modifications (special paint, rear mounted connectors, etc.) will be quoted at existing rates.

Price: Model 800A or 800AR - \$1,885.00
Model 800AM or 800 AMR - \$1,885.00

REPRESENTED BY:

CUSTOM DESIGNED PLOTTERS QUOTED ON REQUEST



Prices and Specifications subject to change without notice.

### DATA EQUIPMENT COMPANY

DIVISION OF BBN CORPORATION (DELAWARE) 2126 So. Lyon Street Santa Ana, California 92705 Telephone: (714) 546-5300 TWX: 714 546-0437

The PLOTAMATIC\* MODEL 850 Point Plotting System is designed to provide accurate, rapid, automatic plots of data in point form. The MODEL 850 sensitivity can be varied from 0.5 mv/inch to 100 v/inch in calibrated steps. The variable scale permits continuous adjustment between any two calibrated positions. The input impedance is a constant one megohm; in the potentiometric mode, input impedance is essentially infinite with sensitivities of 1, 2, 5, and 10 mv/inch. A built-in null detector operates in four different modes. The "CAL" mode allows the recorder to function as a standard x-y plotter during the adjustment of the scale factor. The Symbol Printer will not operate automatically in this mode when a null is reached; random points, however, may be plotted. Two "POINT" modes permit operation with the servos either on or off between plot commands. With the servos off, a "START" command is necessary. In either mode, a "PLOT COMPLETE" pulse is generated to advance the signal source to its next address. The "LINE" mode allows continuous lines to be drawn between closely spaced points. The pen is lowered when the first coordinate to be plotted is reached, and it remains down until a disable command is received. The Symbol Printer is solenoid operated and uses an engraved die to print through a typewriter ribbon. The standard printer includes three dies with a symbol at each end providing a total of six symbols.



- GREATER PLOTTING RATE (600 PER MIN.)
- MAINTENANCE FREE, SEALED, FOLLOW-UP POTENTIOMETERS
- ULTRASTABLE ZENER BRIDGE CIRCUIT REFERENCE VOLTAGE
- PUSH-BUTTON ZERO CHECK SWITCH-EACH AXIS
- W VACUUM HOLD DOWN
- FRONT PANEL SELECTION OF POTENTIOMETRIC MODE
- # FULL SCALE ZERO ADJUSTMENT PLUS 100% OFFSET

### PLOTAMATIC MODEL 850 SPECIFICATIONS

MECHANISM	INDEPENDENT SERVO DRIVES BOTH AXES, ISOLATED AXES FREE OF GROUND.
SLEWING SPEED	TWENTY INCHES PER SECOND EACH AXIS.
PLOTTING RATE	600 PLOTS PER MINUTE, MAXIMUM.
PAPER HOLD DOWN	VACUUM
INPUT VOLTAGE SENSITIVITY	SIXTEEN FIXED SENSITIVITIES ON EACH AXIS: 1, 2, 5, 10, 20, 50 MV/IN.: .1, .2, .5, 1, 2, 5, 10, 20, 50, 100 V/IN. THE VARIABLE SCALE CONTROL PROVIDES CONTINUOUS SCALING BETWEEN STEPS AND INCREASES THE MAXIMUM SENSITIVITY TO .5 MV/IN.
	THE PLOTTER MAY BE OPERATED IN THE POTENTIOMETRIC MODE WITH SENSITIVITIES OF 1, 2, 5, AND 10 MV/IN. WITH CONTINUOUS SCALING BETWEEN THESE FIXED STEPS.
INPUT RESISTANCE	ONE MEGOHM CONSTANT ALL RANGES: POTENTIOMETRIC MODE ESSENTIALLY INFINITE.
REFERENCE VOLTAGE	TEMPERATURE COMPENSATED ZENER BRIDGE CIRCUIT.
ACCURACY	.15% OF FULL SCALE ON ALL RANGES.
RESETABILITY	.1% OF FULL SCALE.
FORCED PLOT	IF A NULL IS NOT REACHED WITHIN APPROXIMATELY ONE SECOND FOLLOWING A "START" COMMAND A "PLOT COMPLETE" PULSE IS FORCED.
ENABLE AND DISABLE VOLTAGE REQUIRED	ENABLE O ≤ VOLTAGE OR OR
	VOLTAGE ≤-3V O ≤ VOLTAGE
START PULSE	MAG; $+$ 10V or $-$ 10V: PULSE WIDTH; 10 $\mu$ SEC.: RISE TIME; .5 $\mu$ SEC.
PLOT COMPLETE PULSE	MAG; +10V or -10V: PULSE WIDTH; 10 μSEC.: RISE TIME; .5 μSEC.
NULL DETECTOR SENSITIVITY	.5% OF FULL SCALE
OPERATING ENVIRONMENT	TEMPERATURE 0° - 50°C
PAPER SIZE	11" x 161/2" PAPER WITH 10" x 15" PLOTTING AREA.
POWER REQUIREMENTS	115V/230V 50/60 C.P.S.
DIMENSIONS	TABLE TOP MTG. $19 \times 17\frac{1}{2} \times 4-29/32$ RACK MTG. 17 INCHES VERTICAL HEIGHT WITH 2-29/32 INCHES BEHIND PANEL.
WEIGHT	26 POUNDS.

### PURCHASING DATA

All prices are F.O.B. Santa Ana, California 92705.

For rack mounting add an "R" to model number.

Where F.O.B. destination is required, transportation cost will be quoted as a separate item at existing rates.

Payment terms, Net 30 days.

Purchase orders should be made out to Data Equipment Company through the local representative, or directly to Data Equipment Company.

Modification (special paint, rear mounted connectors, etc.) will be quoted at existing rates.

Price: Model 850 or 850R - \$2075.00

Prices and Specification subject to change without notice.

REPRESENTED BY:

CUSTOM DESIGNED PLOTTERS QUOTED ON REQUEST



### DATA EQUIPMENT COMPANY

DIVISION BBN CORPORATION (DELAWARE) 2126 S. Lyon Street Santa Ana, California 92705 Telephone: (714) 546-5300 TWX: 714 546-0437